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09/773,537	02/02/2001	Tohru Hirayama	2001_0105A	6305

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EXAMINER
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HUNG, YUBIN

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 12/23/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/773,537

Applicant(s)

HIRAYAMA ET AL.

Examiner

Yubin Hung

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on February 4, 2000. It is noted, however, that applicant has not filed a certified copy of the 2000-28414 application as required by 35 U.S.C. 119(b).

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - P. 1, lines 11, 18: UP should be changed to "US."
  - P. 4, lines 26-27: The definition of "micro-brilliance-feeling *characteristic* data" cannot be found anywhere in the specification.  
  
Hereinafter it will be interpreted as the same as "micro-brilliance-feeling data."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 6 recites the limitation "or the corrected blend obtained in step (4)" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

"Step (4)" recited in claim 6 finds no antecedent base in claim 4. However, if claim 6 was dependent on claim 5, then the 112 rejection will be withdrawn. Therefore, for the sake of examination on merits, it will be assumed that claim 6 depends on claim 5.

5. Claim 9 recites the limitation "or the corrected blend obtained in step (8)" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

"Step (8)" recited in claim 9 finds no antecedent base in claim 7. However, if claim 9 was dependent on claim 8, then the 112 rejection will be withdrawn. Therefore, for the sake of examination on merits, it will be assumed that claim 9 depends on claim 8.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrigan et al. (US 6,522,977) in view of Alman (US 4,479,718) and Admitted Prior Art (Specification: P. 1, lines 9-25).

8. Regarding Claim 1 (as interpreted), Corrigan et al. discloses:

- a colorimeter  
[Fig. 1, numeral 10; Col. 6, lines 24-28, 46-48]
- a computer in which a plurality of paint blends, the color data corresponding to each of the paint blends of a plurality of full-color paints are entered and a color-matching calculation logic using the paint blends and the data operates [Col. 7, line 24 – Col. 8, line 8 (Computer); Col. 8, lines 23-33 (paint blends); Col. 8, lines 45-48 (color data); Fig. 1, the diamond-shaped block and the Pain Data Matching Process section starting at Col. 8, line 60 (color-matching calculation logic).]

While Corrigan et al. also considers metallic paint (a kind of brilliant paint) in Col. 8, lines 29-33, it does not expressly teach the inclusion of a micro-brilliance-feeling measuring device and the entering of color characteristic data and micro-brilliance-feeling data into the computer.

However, Alman teaches the use of a device for characterizing a surface containing metallic paint [Abstract; Fig. 2; Col. 2, lines 21-33] by measuring micro-brilliance-feeling data [Fig. 1; Table on Col. 4, lines 12-23]. In addition, Admitted Prior Art teaches the

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calculation and use of color characteristic data. [Specifically, the K-values and the S-values recited in Col. 1, lines 15-16].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corrigan et al. with the teachings of Alman and the Admitted Prior Art by using a micro-brilliance-feeling measuring device to measure micro-brilliance-feeling data, calculating characteristic data, entering the data to the computer and use them for color matching because the system of Corrigan et al. does process metallic paints and, as Alman points out, the special property of such paints requires a different approach/device for properly characterization (Col.1, lines 25-64).

9. Regarding claim 2, Corrigan et al. further discloses:

- color numbers corresponding to a plurality of paint blends entered in the computer (C) are entered in the computer  
[Col. 8, lines 34-52. Note that VIN serves as the color number.]

10. Regarding claim3, Corrigan et al. further teaches:

- wherein a colorimeter (A) is a multiangle colorimeter  
[Col. 6, lines 27-28.]

Note that while Corrigan et al. has not expressly disclosed the use of a multiangle colorimeter, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use one since it was available (e.g., the device of US 5,387,977 to Berg et al.) and would be much easier to use and produce more consistent results.

11. Claim 10 is similarly analyzed and rejected as claim 3.

12. Regarding claim 4, Corrigan et al. further discloses

- a step of measuring a paint film of a reference color to which the color of a paint should be adjusted through color-matching by a colorimeter to obtain color data of the reference color  
[Fig. 1, numeral 10; Col. 6, lines 25-27]
- a step of comparing the color data of the reference color with color data corresponding to paint blends previously entered in a computer, indexing the degree of matching of the color of the entered paint blends, and selecting a prospective paint blend  
[Claim 1, lines 12-18. Note that indexing is inherent in any comparison/selection step.]

While Corrigan et al. does not expressly teach an additional step of measuring the paint film of a reference color by a micro-brilliance-feeling measuring device to obtain micro-brilliance-feeling data of the reference color for use in the comparison step, Alman teaches measuring color data of a surface containing metallic paint [Fig. 1; Table on Col. 4, lines 12-23] by a (micro-brilliance-feeling) measuring device [Abstract; Fig. 2; Col. 2, lines 21-33].

Since Corrigan et al. considers metallic paint (a kind of brilliant paint) in Col. 8, lines 29-33, it therefore would have been obvious to one of ordinary skill at the time the invention was made to modify Corrigan by also measuring a paint film of reference color and use the result in the comparison step in order to improve the matching result of the metallic

colors because measurements using only regular colorimeter cannot capture the special characteristics of metallic paints and will result in inferior color reproduction.

13. Regarding claim 5, Corrigan et al. further discloses

- executing (4) a step of correcting a selected paint blend by a color-matching-calculation logic after the step (3) to obtain a corrected blend closer to a reference color  
[Claim 3]

14. Regarding claim 6 (as assumed), Corrigan et al. further discloses

- wherein the prospective paint blend obtained in step (3) or the corrected blend obtained in step (4) is transferred to an electronic balance  
[Fig. 1, numerals 16, 20,22; Col. 5, lines 37-45; Col. 6, lines 15-16. Note that it is well known in the art that an electronic balance is used for monitoring the amount of paint used.]

15. Claim 11 is similarly analyzed and rejected as per claim 6.

16. Regarding claim 7, Corrigan et al. in Col. 8, line 61 – Col. 9, line 5 further discloses the additional limitation in Step (7) of claim 7, which corresponds to step (3) of claim 4, of “selecting color data and micro-brilliance-feeling data of at least one paint blend having the same color number as the preset color number of the reference color” for comparison. This is because Col. 8, line 61 – Col. 9 line 5 clearly indicates that each VIN, i.e., the color number, corresponds to a set of vehicles, which in turn is equivalent to a set of paint blend (since each vehicle has one).



17. Claims 8, 9 and 12 are similarly analyzed and rejected as per claims 5, 6, 11, respectively.


***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yubin Hung whose telephone number is (703) 305-1896. The examiner can normally be reached on 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Yubin Hung  
December 12, 2003

  
**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
TELEPHONE NUMBER 308-5246